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CLAIMS

1. Apparatus for coagulating tissue, comprising
 - 10 an electrode (3) that is connected to an HF generator (1) to produce a high-frequency current, and
 - a tube, a tubular probe or similar gas-delivering device (10) to deliver argon or similar inert gas from an outlet (13) of the gas-delivering device (10) into a space between the
 - 15 electrode (3) and the tissue (5) in such a way that between the electrode (3) and the tissue (5) a plasma is produced, characterized in that
 - the distal end (4) of the electrode (3) projects out of the gas-delivering device (10) and at the distal end (4) a guiding
 - 20 device (20) for directing and guiding the gas and/or plasma is disposed in such a way that at least a part of the flowing gas and/or the plasma is diverted into the prespecified direction.
2. Apparatus according to Claim 1,
characterized in that the guiding device is made of an
- 25 electrically insulating material.
3. Apparatus according to one of the preceding claims,
characterized in that the guiding device is made of a thermally stable material.
4. Apparatus according to one of the claims 2 or 3,
- 30 characterized in that the material is ceramic.

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5. Apparatus according to one of the preceding claims, characterized in that the electrode (3) is shaped as a rod or wire and the guiding device (20) is disposed around the electrode (3) with axial symmetry, so that the gas flows into the surrounding space substantially radially with respect to the outlet (13) of the gas-delivering device (10).
6. Apparatus according to one of the preceding claims, characterized in that the guiding device (20) has a concave configuration on its side (21) that faces the outlet (13).
7. Apparatus according to one of the preceding claims, characterized in that the guiding device (20) is rounded, in order to prevent mechanical damage if it touches the tissue (5).
8. Apparatus according to one of the preceding claims, characterized in that the electrode (3) is so constructed that it can be shifted relative to the outlet (13) in such a way that when the guiding device (20) is in its retracted state, it closes the outlet (13) in a substantially leakproof manner.